



(43) International Publication Date
6 December 2012 (06.12.2012)

- (51) **International Patent Classification:**
A01F 29/16 (2006.01) *A01F 15/10* (2006.01)
- (21) **International Application Number:**
PCT/US2012/040650
- (22) **International Filing Date:**
4 June 2012 (04.06.2012)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
61/492,904 3 June 2011 (03.06.2011) US
- (71) **Applicant (for all designated States except US):** **AGCO CORPORATION** [US/US]; 4205 River Green Parkway, Duluth, GA 30096 (US).
- (72) **Inventor; and**
- (75) **Inventor/Applicant (for US only):** **BALDAUF, Jeffery** [US/US]; 225 S. Lancaster, Hesston, KS 67062 (US).
- (74) **Agents:** **LEWINSKI, Joseph** et al.; 4205 River Green Parkway, Duluth, GA 30096 (US).
- (81) **Designated States (unless otherwise indicated, for every kind of national protection available):** AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO,

DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

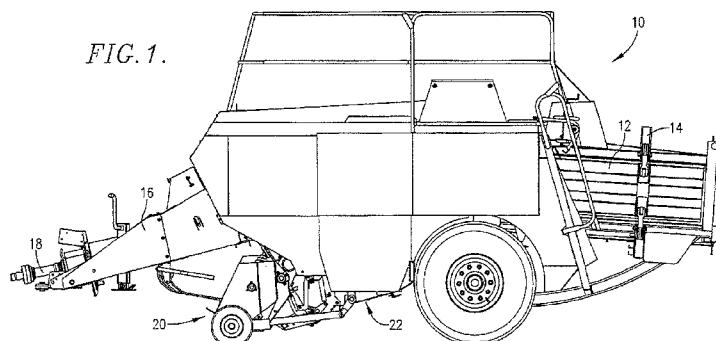
- (84) **Designated States (unless otherwise indicated, for every kind of regional protection available):** ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

- (88) **Date of publication of the international search report:**
22 May 2014

(54) **Title:** ROTARY CUTTER APPARATUS FOR BALER



(57) **Abstract:** Cutter apparatus for a crop material baler has a rotor carrying a series of blades and a knife bed having a series of knives, with the knives arranged to project up between the blades so that as the blades rotate, the blades pass on opposite sides of knives and sever the crop materials. The knife bed includes a cross shaft and an indexing shaft extending substantially the full width of the knife bed. Biasing mechanisms spring-load the knives. Each biasing mechanism has a roller contacting its respective knife and a roller support mounted on the indexing shaft with a rubber torsion spring. Each knife is configured to swing down about the cross shaft against the biasing force of its torsion spring in the event that an obstruction or solid object passes through the cutting zone and engages the knife.

INTERNATIONAL SEARCH REPORT

International application No

PCT/US2012/040650

A. CLASSIFICATION OF SUBJECT MATTER

INV. A01F29/16 A01F15/10
ADD.

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

A01F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 198 32 463 A1 (KRONE BERNHARD GMBH MASCHF [DE]) 27 January 2000 (2000-01-27) figures 3-8 column 3, line 39 - column 6, line 15 -----	1-14
X	DE 197 06 429 C1 (FORTSCHRITT ERNTEMASCHINEN [DE]) 16 April 1998 (1998-04-16) figures 1,2,4 column 5, line 37 - column 8, line 8 -----	1,2
A	EP 0 689 760 A1 (CLAAS OHG [DE]) 3 January 1996 (1996-01-03) figures 3,4,5 page 2, line 49 - page 4, line 10 ----- -/-	1-14



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

27 March 2014

Date of mailing of the international search report

03/04/2014

Name and mailing address of the ISA/

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040,
Fax: (+31-70) 340-3016

Authorized officer

Bongibault, Patrick

INTERNATIONAL SEARCH REPORT

International application No

PCT/US2012/040650

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	DE 43 02 199 A1 (CLAAS OHG [DE]) 28 July 1994 (1994-07-28) figure 2 column 2, line 60 - column 6, line 57 -----	1-14

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2012/040650

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
DE 19832463	A1	27-01-2000	AT 238648 T 15-05-2003
			AU 5156899 A 07-02-2000
			DE 19832463 A1 27-01-2000
			EP 1121012 A2 08-08-2001
			US 6594983 B1 22-07-2003
			WO 0003584 A2 27-01-2000
DE 19706429	C1	16-04-1998	DE 19706429 C1 16-04-1998
			US 5974776 A 02-11-1999
EP 0689760	A1	03-01-1996	DE 4422872 A1 11-01-1996
			EP 0689760 A1 03-01-1996
DE 4302199	A1	28-07-1994	DE 4302199 A1 28-07-1994
			FR 2700663 A1 29-07-1994